

Three-dimensional catalyst gauzes knitted in two or more layers**Abstract**

5 The present invention relates to three-dimensional catalyst gauzes for gas
reactions knitted in two or more layers from noble metal wires in which the meshes of
the individual layers are joined to one another by pile threads. In these catalyst gauzes
weft threads are inserted between the mesh layers. These catalyst gauzes have an
increased catalytic activity and efficiency in gas reaction. These improvements enable
10 operation with a lower total amount of noble metal employed, for example by reducing
the number of gauzes and/or the length of the wire processed in the catalyst gauze
and/or the wire thickness, without thereby having to accept disadvantages with respect
to the yield and selectivity of the gas reaction, mechanical strength and service life of
the gauzes or unavoidable loss of noble metal.

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